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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,340	05/24/2000	Hiroaki Takebe	826.1605/JDH	5834
21171	7590	07/21/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			LU, TOM Y	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/577,340	Applicant(s) HIROAKI TAKEBE	
	Examiner Tom Y. Lu	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 10, 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-8, 11-17, 19-21 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date* _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment and written response filed on 12/20/2004 has been entered and considered.
2. Claims 1-26 are pending.
3. Claim 18 is withdrawn from consideration.

### ***Response to Arguments***

4. Applicant's arguments, see Remarks, pages 13-14, filed 12/20/2004, with respect to the rejection(s) of claim(s) 1-17 and 19-26 under 35 U.S.C. 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nishijama et al (U.S. Patent No. 5,253,303).

### ***Claim Objections***

5. Claim 24 is objected to because of the following informalities: typographical errors are found at lines 4 and 8. "a image" should be "an image" and "charter" should be "character". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-8, 16, 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Referring to Claim 5, the limitations of “a correspondence unit corresponding a last element in the sequence of the elements of the category with each element of the character string image; a search unit search for an element of the character string image relating to the first element of the sequence of elements of the category is each of the sequence of elements of the image, to which the last of the sequence of elements of the category is related” are not understood by the examiner. No explanation is found in the specification. Please explain.
- b. Claims 6-8 are dependent upon claim 5.
- c. Claim 16 is rejected for the same reason given in Claim 5.
- d. Claim 21 is rejected for the same reason given in Claim 5.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 11-15, 17, 19-20 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishijama et al (U.S. Patent No. 5,253,303).

- a. Referring to Claim 1, Nishijama discloses a pattern segmentation apparatus (segmentation point detecting means as shown in figure 1), comprising: a feature amount extraction unit (character height detectors 31-34) extracting a feature amount (positional information of the points i as shown in figure 2, column 3, line 18) of an image (video image of “type” as shown in figure 2); a feature amount

setting unit (standard pattern B(n)) setting a feature amount of a category (positional information of standard patterns, eg, S1(1), S2(3), S3(5) and S4(7), see figure 2 and column 2, lines 44-50 and column 3, line 19); a feature amount comparison unit (character collating circuits 51-54 as shown in figure 1) comparing the feature amount of the category with the feature amount of the image (column 4, lines 10-15); and a segmentation unit segmenting an area similar to the feature amount of the category from the image based on the comparison result (column 3, lines 26-30); wherein a pattern corresponding to a feature amount of a category at a location of an image is segmented, images are segmented at a position between said images when a touching position between said images does not correspond to a minimum point of a black pixel projection histogram and when an image has a number of uneven portions in pattern to be segmented, one pattern can be prevented from being divided into a large number of areas at the minimum point of the pattern, by collectively segmenting a portion corresponding to a feature amount of a category from an image (note Nishijama teaches determining a segmentation position based on the minimum difference between the normalized value and the standard pattern, therefore, the segmentation does not depend upon a black pixel projection, as shown in figure 2, the image "type" does have a number of uneven portions, and there is no need to divide a pattern into a large number of areas at the minimum point of the pattern).

- b. Referring to Claim 2, Nishijama discloses wherein said feature amount comparison unit comprises a correspondence generation unit generating

correspondence relationships between the feature amount of the category and the feature amount of the image, and compares the feature amount of the category with the feature amount of the image based on the correspondence relationships (see figure 2, the corresponding points of the image and the standard patterns are compared, column 4, lines 10-15).

- c. With regard to Claim 11, see explanation in Claim 1.
- d. Referring to Claim 12, Nishijama teaches wherein said feature amount of the category is compared with the entire feature amount of the image in a continuous DP method (the collating circuit is functioned according to a continuous dynamic programming method).
- e. Referring to Claim 13, Nishijama discloses wherein said feature amount is peripheral features up to an n-th peripheral feature (the points as shown in figure 2 are peripheral features, and the number is greater than 1).
- f. Referring to Claim 14, Nishijama discloses wherein of all combinations of segmentation positions in which segment area similar to a feature amount of any of the categories in such a way as to being adjacently connected on the image, a combination whose sum of a difference level between the image segmented in each segmentation position and the category similar to the image is a minimum is selected (column 3, lines 26-31).
- g. With regard to Claim 15, Nishijama teaches the segmentation point of a character is determined when the noncoincidence count is minimum. In another words, when the first portion of a character does not have the minimum difference value

between the normalized value and the standard pattern, the segmentation point cannot be determined, and the remainder of the portion should be further evaluated.

- h. With regard to Claim 17, see explanation in Claim 1.
- i. With regard to Claim 19, see explanation in Claim 1, and the examiner further notes the Nishijama technique must be implemented on a computer-like system, which inherently contains a computer readable medium.
- j. With regard to Claim 20, see explanation in Claim 1.
- k. Referring to Claim 24, Nishijama discloses storing a character feature size for features to be extracted from a character string image (standard patterns are stored as a dictionary, which contains standard size of characters); scanning the character string image and extracting an image feature sizes of features in the character string image (the image "type" is scanned and normalized in size); comparing the character feature sizes to the image feature sizes and determining best matches between character features sizes and image feature sizes (collating the positional information of the normalized values and the standard patterns is the same as comparing in the sizes because the positional information reveals the sizes of the character); and segmenting the character string image based on the best matches ();column 3, lines 26-30 and the rest limitations are addressed in Claim 1.
- l. With regard to Claim 25, see explanation in Claim 24.
- m. With regard to Claim 26, see explanation in Claim 24.

*Allowable Subject Matter*

8. Claims 3, 4 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 5, 16 and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10. Claims 6-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. Claims 9-10 and 22-23 are allowed as indicated in the previous office action dated 8/25/2004.

*Conclusion*

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571) 272-7393. The examiner can normally be reached on 8:30AM-5PM.

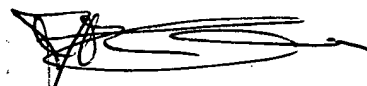
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu



JOSE L. COUSO  
PRIMARY EXAMINER